WHAT IS CLAIMED IS:

1. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge in the midway of the sludge treatment line; and stirring the flocculating agent-added sludge by a stirring pump arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line, thus forming flocks as a result of the flocculation reaction of the flocculating agent.

2. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a first flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge at a first flocculating agent injection part in the midway of the sludge treatment line; stirring the flocculating agent-added sludge by a stirring pump arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line; and then adding to the sludge

a second flocculating agent at a second flocculating agent injection part in the midway of the sludge treatment line to form flocks as a result of the flocculation reaction of the flocculating agent.

3. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a first flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge at a first flocculating agent injection part in the midway of the sludge treatment line; shear-stirring the flocculating agent-added sludge by a stirring pump arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line to form flocks by flocculation reaction; then adding to the sludge a second flocculating agent at a second flocculating agent injection part in the midway of the sludge treatment line; and then stirring the flocculating agent-added sludge by a second stirring pump arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent such that the flocks thereof are not destructed to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the

sludge in the sludge treatment line to form flocks as a result of the flocculation reaction of the flocculating agent.

4. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge at two or more flocculating agent injection parts in the midway of the sludge treatment line; and stirring the flocculating agent-added sludge by a stirring pump or pumps arranged in the midway of sludge treatment line and ahead of arbitrary flocculating agent injection part or parts prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line, thus forming flocks as a result of the flocculation reaction of the flocculating agent.

5. A process for treating sludge according to any one of claims 1 to 4, wherein the flocks formed in the sludge treatment line are separated into a solid and liquid by a solid-liquid separator.

6. A process for treating sludge according to any one of claims 1 to 5, wherein the sludge flowing in the sludge treatment

line downstream of the stirring pump is made a laminar flow to prevent destruction of the flocks formed in the sludge treatment line.

7. A process for treating sludge according to any one of claims 1 to 6, wherein the distance from the flocculating agent injection part to the stirring pump is set to a distance such that the flocculating agent can pass through in a reaction initiation time obtained in advance for each flocculating agent.

8. A process for treating sludge according to any one of claims 2 to 7, wherein either or both of the distances from the stirring pump to the flocculating agent injection part ahead thereof and the distance from the stirring pump to the solid-liquid separator is or are set to a distance or distances up to positions such that the flocculation strengths of flocks calculated based on the flocculation lasting periods of time of flocks formed after the stirring by the stirring pump are maximum.

9. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge in the midway of the sludge treatment line; and shear-stirring the flocculating

agent-added sludge by a liquid shear-stirrer arranged in the midway of the sludge treatment line prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line, thus forming aggregate structure type flocks as a result of the flocculation reaction of the flocculating agent.

10. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a first flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge at a first flocculating agent injection part in the midway of the sludge treatment line; shear-stirring the flocculating agent-added sludge by a liquid shear-stirrer arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line; and then adding to the sludge a second flocculating agent at a second flocculating agent injection part in the midway of the sludge treatment line to form aggregate structure type flocks as a result of the flocculation reaction of the flocculating agent.

11. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a first flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge at a first flocculating agent injection part in the midway of the sludge treatment line; shear-stirring the flocculating agent-added sludge by a first liquid shear-stirrer arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line to form particle flocks by flocculation reaction; then adding to the sludge a second flocculating agent at a second flocculating agent injection part in the midway of the sludge treatment line; then shear-stirring the flocculating agent-added sludge by a second liquid shear-stirrer arranged in the midway of sludge treatment line prior to initiation of flocculation reaction of the flocculating agent such that the particle flocks thereof are not destructed to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line to form aggregate structure type flocks as a result of the flocculation reaction of the flocculating agent; and allowing aggregate structure type flocks to gather at a subsequent laminar flow stage to grow into a sludge block.

12. A process for treating sludge, comprising the steps of: adding to sludge flowing in a sludge treatment line a flocculating agent for flocculating various materials such as dissolved solid, suspended solid or fine floating solid in the sludge at two or more flocculating agent injection parts in the midway of the sludge treatment line; and stirring the flocculating agent-added sludge by a liquid shear-stirrer or shear-stirrers arranged in the midway of sludge treatment line and ahead of arbitrary flocculating agent injection part or parts prior to initiation of flocculation reaction of the flocculating agent to disperse, diffuse or distribute the flocculating agent in a fine particulate state throughout the sludge in the sludge treatment line, thus forming flocks as a result of the flocculation reaction of the flocculating agent.

13. A process for treating sludge according to any one of claims 9 to 12, wherein the aggregate structure type flocks formed in the sludge treatment line are separated into a solid and liquid by a solid-liquid separator.

14. A process for treating sludge according to any one of claims 9 to 13, wherein the sludge flowing in the sludge treatment line downstream of the liquid shear-stirrer is made a laminar flow

to prevent destruction of the aggregate structure type flocks formed in the sludge treatment line.

15. A process for treating sludge according to any one of claims 9 to 14, wherein the distance from the flocculating agent injection part to the liquid shear-stirrer is set to a distance such that the flocculating agent can pass through in a reaction initiation time obtained in advance for each flocculating agent.

16. A process for treating sludge according to any one of claims 9 to 15, wherein either or both of the distance from the first liquid shear-stirrer to the second flocculating agent injection part and the distance form the second flocculating agent injection part to the second liquid shear-stirrer is or are set to a distance or distances up to positions such that the flocculation strengths of flocks calculated based on the flocculation lasting periods of time of flocks formed after the shear-stirring by the second liquid shear-stirrer are maximum.